


REMARKS

Applicants believe that the amendments overcome the rejections raised in the previous office action and two telephonic interviews. Applicants submit that the claims are now in condition for allowance and such action is respectfully requested. Enclosed is a petition extending the period for reply for four months, to and including October 9, 2002. If there are any additional charges, or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

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Version with Markings to Show Changes Made

1. (Amended) A hydrogel precursor composition comprising:
 - (a) a polymer[, said polymer] comprising a water soluble polymer domain with at least two hydrophobic interacting groups attached thereto, [said polymer capable of assembling into] wherein said hydrophobic interacting groups bind strongly to each other in an interchain manner to form a hydrogel under physiological conditions; and
 - (b) a physical chemical protecting group that inhibits [said physical chemical protecting group preventing] gel formation of said polymer [hydrogel precursor composition] by preventing said hydrophobic interacting groups from binding strongly in an interchain manner.
2. (Amended) A hydrogel or hydrogel precursor composition comprising:
 - (a) a polymer[, said polymer] comprising a water soluble polymer domain with at least two hydrophobic interacting groups attached thereto, [said polymer capable of assembling into] wherein said hydrophobic interacting groups bind strongly to each other in an interchain manner to form a hydrogel under physiological conditions;
 - (b) a physical chemical protecting group that inhibits [said physical chemical protecting group preventing] gel formation of said polymer [hydrogel precursor composition or hydrogel] by preventing said hydrophobic interacting groups from binding strongly in an interchain manner; and
 - (c) a molecule that disrupts an interaction between said physical chemical protecting group and said hydrophobic interacting groups.
14. (Amended) A method for forming a hydrogel in contact with a tissue, said method comprising the steps of:
 - (a) providing a solution[, said solution] comprising a polymer[, said polymer] comprising a water soluble polymer domain having at least two hydrophobic interacting groups attached thereto, [said polymer capable of assembling into] wherein said hydrophobic interacting groups bind strongly to each other in an interchain manner to form a hydrogel under physiological conditions, and a physical chemical protecting group that inhibits [said physical chemical protecting group preventing] gel formation of said polymer by preventing said hydrophobic interacting groups from binding strongly in an interchain manner;
 - (b) providing a molecule that disrupts an interaction between said physical chemical protecting group and said hydrophobic interacting groups;
 - (c) combining said solution of step (a) with said molecule of step (b) [that disrupts an interaction between said physical chemical protecting group and said hydrophobic interacting groups] to form a mixture, wherein prior to, during, or after said combining, said solution and said molecule [that disrupts an interaction

between said physical chemical protecting group and said hydrophobic interacting groups] are contacted with a tissue; and

(d) allowing gel formation of the solution of the mixture of step (c) in contact with said tissue.

15. (Amended) A method for forming a hydrogel in contact with a tissue, said method comprising the steps of:

(a) providing a solution[, said solution] comprising a polymer[, said polymer] comprising a water soluble polymer domain having at least two hydrophobic interacting groups attached thereto, [said polymer capable of assembling into] wherein said hydrophobic interacting groups bind strongly to each other in an interchain manner to form a hydrogel under physiological conditions, and a water soluble organic solvent, said organic solvent preventing gel formation of said polymer; and

(b) removing all or part of said organic solvent from said solution, wherein prior to, during, or after said removal, said solution and said organic solvent are contacted with a tissue[; and],

wherein said removing of said organic solvent in step (b) allows [(c) allowing] gel formation of the solution of step (b) in contact with said tissue.

16. (Amended) A method for forming a hydrogel in contact with a tissue, said method comprising the steps of:

(a) providing a solution[, said solution] comprising a polymer[, said polymer] comprising a water soluble polymer domain having at least two hydrophobic interacting groups attached thereto, [said polymer capable of assembling into] wherein said hydrophobic interacting groups bind strongly to each other in an interchain manner to form a hydrogel under physiological conditions, and a water soluble organic solvent, said organic solvent preventing gel formation of said polymer; and

(b) contacting said solution with a tissue; and

(c) allowing at least a portion of said organic solvent to be removed from said solution, wherein said removal of said organic solvent allows gel formation of the solution of step (a) in contact with said tissue [allowing gel formation of said solution in contact with said tissue].

17. (Amended) A method for incorporating a sensitive biological material into a hydrogel composition, said method comprising the steps of:

(a) providing a solution[, said solution] comprising a polymer[, said polymer] comprising a water soluble polymer domain having at least two hydrophobic interacting groups attached thereto, [said polymer capable of assembling into] wherein said hydrophobic interacting groups bind strongly to each other in an interchain manner to form a hydrogel under physiological

conditions, and a physical chemical protecting group that inhibits [said physical chemical protecting group preventing] gel formation of said polymer by preventing said hydrophobic interacting groups from binding strongly in an interchain manner;

(b) providing a molecule that disrupts an interaction between said physical chemical protecting group and said hydrophobic interacting groups;

(c) providing a sensitive biological material[, wherein said sensitive biological material is combined with either said solution of step (a) or said molecule that disrupts and interaction between said physical chemical protecting group and said hydrophobic interacting group of step (b)];

(d) combining said solution with said molecule [that disrupts and interaction between said physical chemical protecting group and said hydrophobic interacting group] and said sensitive biological material to form a mixture; and

(e) allowing gel formation of the mixture of step (d).

18. (Amended) A method for incorporating a sensitive biological material into a hydrogel composition, said method comprising the steps of:

(a) providing a solution[, said solution] comprising a polymer[, said polymer] comprising a water soluble polymer domain having at least two hydrophobic interacting groups attached thereto, [said polymer capable of assembling into] wherein said hydrophobic interacting groups bind strongly to each other in an interchain manner to form a hydrogel under physiological conditions, and a water soluble organic solvent, said organic solvent preventing gel formation of said polymer;

(b) providing a sensitive biological material; and

(c) combining said sensitive biological material with said solution to form a mixture, wherein prior to, during, or after, said combining, all or part of said organic solvent is removed from said solution[; and (d) allowing],

wherein said removal of said organic solvent results in gel formation of the mixture of step (c).